

How To Raise (Elevate) Your Historic House



FEMA

Introduction

As the owner of a historic structure in a disaster-prone area, you have many considerations when altering, improving, and/or repairing your property. Historic properties in Louisiana have been subject to repeated flooding, stormwater surges, and hurricanes due to their proximity to natural waterways and bodies of water, the Mississippi River and the Gulf of Mexico. Consequently, a building tradition has evolved to include elevated or raised residences and smaller commercial structures above grade (above the ground). While some structures were elevated during their original construction, others have been elevated after suffering from flood damage.



The preservation approaches recommended by the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (<http://www.nps.gov/history/hps/tps/standguide/>) and the National Register of Historic Places (<http://www.nps.gov/nr/>) can make it seem as though the elevation of historic structure is difficult from a preservation-friendly perspective. However, recognizing the critical need to mitigate historic properties against future damages, the Federal Emergency Management Agency (FEMA), in consultation with various local, national and federal historic preservation partners have developed the following recommended methods for elevating historic structures, while preserving their historic character as much as possible.

What Questions Do I Need to Think About?

- Will elevation significantly alter the historic characteristics (i.e., “what it looked like” in the past or “what it was built from”) of the structure?
- Will the alterations have a permanent effect on the historic fabric?
- Once the house is raised, will it still maintain its historic character (features or traits that make it historic) or “feel”?
- Will the structure match the historic character of the community (if the structure is in a historic district or neighborhood)?
- Have local residents of your historic district or neighborhood discussed how their elevation plans might affect the neighborhood as a whole?
- Do the elevation plans include preservation of existing materials?
- Do the elevation plans include historically-accurate rehabilitation?
- Will there be any archeological resources affected?

If your answers indicate that the historic nature of your property will be greatly compromised, you might want to consider alternative options to preserve your historic structure.

How Do I Proceed?

Elevation is the most common way to protect your house from a flood hazard. However, this process could be detrimental to a historic property if not executed properly. Consider the following approaches to integrate historic preservation into your elevation plan:

- Use in-kind materials (the original types of materials).
- Replicate or approximate the original scale (size of a structure) and/or setting (its place in its environment).
- Introduce landscape features, such as bushes and trees, to minimize visible changes when possible.
- Exercise special care and attention to the structure's immediate surroundings (other historic structures or landscape features).
- Consider the effects your alterations might have on the general aesthetic of a neighborhood and/or streetscape.

And finally, ask yourself: Would the builder or historic inhabitant of this structure recognize it after the alterations? When the answer is No, alternative mitigation measures should be considered to retain the structure's historic features.

How High is Too High?

Determine the Advisory Base Flood Elevations (ABFE) for your neighborhood. The ABFE's are provided in FEMA's Katrina Recovery Maps. These maps and the ABFE determine the flood level of protection, which, in turn, approximate the measurements for elevation. While the ABFEs provided by FEMA are accurate, they are not property-specific. Therefore, it is important that you consult a surveyor or engineer who can determine the exact ABFE for your property. The ABFE determination process is explained in greater detail on the FEMA Web site at <http://www.fema.gov/hazard/flood/recoverydata/katrina/index.shtm>.

From a preservation perspective, it is recommended that your house be raised no higher than what is required by ABFE. Plan on investigating the maximum and minimum height regulations of your property while minimizing the potential effect on your historic building and its surroundings. This includes exercising consideration of neighboring structures and/or local neighborhood or district standards.

The Treatment of Historic Properties

The Secretary of the Interior's Standards for the Treatment of Historic Properties (the Standards) define appropriate approaches to preserving, rehabilitating, and reconstructing historic properties. Because the goal of your elevation mitigation project is to reduce future damages and losses, it will more than likely incorporate elements of preservation, rehabilitation, and reconstruction, as defined below. These definitions related to the Standards are followed by specific examples that you can use for elevating structures.

Preservation is the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. In other words, preservation keeps what is there at the time of the project; it does not seek to return a property to its original condition.

- The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided. (EXAMPLE: The interstitial spaces (spaces between piers) are filled with historically-appropriate screening materials (i.e., shutter panels, infill panels, and or landscaping elements).



- Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research. (EXAMPLE: The design of new piers and/or foundation walls will match in kind the existing materials and treatment of the existing piers and/or foundation.)
- Changes to a property that were made after the original date of construction and have acquired historic significance in their own right will be retained and preserved. (EXAMPLE: An early nineteenth century house was built in the Classical style and in the mid-twentieth century a large, decorative front porch was added to the house. When elevating the house, the porch, even though not original, should be retained because it has become historically significant.)
- Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved. (EXAMPLE: A minor example would be using in-kind materials and aesthetics considerations when extending a stairway. Obviously, if a house is raised 3 feet from its original elevation its stairway will need 3 feet more of steps leading to its front door. In this case, the steps would need to be constructed in the same fashion and using the same materials as the original stairway.)
- The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture. (EXAMPLE: If the house was skirted with a white wooden lattice that has deteriorated, it should be replaced with a lattice of the same design, color, and texture.)
- Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used. (MORE INFORMATION: If your historic house or business is being elevated, it is important to employ a company that is experienced with the appropriate treatment of historic properties.)
- Archeological resources will be protected and preserved in place. (MORE INFORMATION: If, when raising your historic house or business, you stumble upon an eligible or potentially eligible archeological site, FEMA (if you are receiving federal money) and SHPO must be notified so that the proper actions can be taken.)

Rehabilitation is the act or process of making a compatible use for a property possible through repair, alterations, and additions, while preserving those portions or features that convey its historical, cultural, or architectural values.

- New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment. (EXAMPLE: If a brick house is elevated using cinder blocks, the blocks would need to be covered in a brick veneer to maintain the aesthetics.)

Reconstruction is the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

- Designs that were never executed historically will not be constructed. (MORE INFORMATION: Again, when elevating a historic house or business, the materials and design of the structures needed to raise the property should be treated, as much as possible, as an extension of what is already present so that it does not deviate from the historic materials and design.)
- Reconstruction will include measures to preserve any remaining historic materials, features, and spatial relationships.
- Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color, and texture. (MORE INFORMATION: Reconstruction of a foundation to elevate a property may involve tasks similar to preservation, rehabilitation, and reconstruction; however, these aspects of the Standards should be considered when raising houses.)